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EXAMINER

MARIAM, DANIEL G

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 05/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,539

Applicant(s)

PITTEL, ARKADY

Examiner

DANIEL G. MARIAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 27-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 27-41 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. 5/12/2006.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-26, drawn to on-line handwriting recognition, classified in class 382, subclass 187.
 - II. Claims 27-41, drawn to a handheld pointer for inputting positional information, classified in class 345, subclass 179.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination I has separate utility such as a portable electronic device. See MPEP § 806.05(d).
3. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.
4. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification/search during a telephone conversation with David L. Feigenbaum (Reg. No. 30,378) on May 12, 2006 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-26. Affirmation of this election must be made by applicant in replying to this Office action.

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Claims 27-41 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

5. Claim 24 is objected to because of the following informalities: claim 24, recites the limitation "video-capable camera". What does this mean? Does this mean it operates sometimes as a video camera and other times as a generic camera? Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 20 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 20 recites the limitation "the portable electronic device includes a digital signal processing chip and a general purpose microprocessor and the software is run in part on the chip and in part on the microprocessor". Only a cursory of these features are mentioned on page 2, line 25 – page 3, line 1 of the specification. How does the software is run in part on the chip and in part on the microprocessor?

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 1, 6, 18, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki, et al (US Patent Application Publication: 2003/0122804).

With regard to claim 1, Yamazaki, et al discloses an apparatus comprising a portable electronic device, i.e. mobile telephone, a digital camera, i.e., CCD camera, associated with the portable electronic device, and software configured to run on the portable electronic device and to derive handwriting, i.e., signature and/or handwriting, and control information from hand motion of a writing instrument, i.e., writing tool “item 2, in Fig. 1, in the vicinity of the digital camera (See for example, pp. 4-5, paragraphs 0118-paragraph 0131; and Figs. 1-5).

With regard to claim 6, the apparatus of claim 1 also including a lens arranged to alter the focal length and/or depth of field of the digital camera (See for example, page 4, paragraphs 0113-0114).

With regard to claim 18, the apparatus of claim 1 in which the portable electronic device includes a display and the trajectory of the hand motion is shown on the display in real-time (See for example, Fig. 20).

With regard to claim 26, the apparatus of claim 1 in which the software is configured to apply pattern recognition to signals from the digital camera (See for example, items 59 and 61, in Fig. 5).

10. Claims 1-4, 10-11, 14, 19-21, and 23-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Whitham (6,526,351).

With regard to claim 1, Whitham discloses an apparatus comprising a portable electronic device, i.e. PDA, a digital camera associated with the portable electronic device, and software configured to run on the portable electronic device and to derive handwriting and control information from hand motion (this feature is inherently required because the pen/stylus has to be held by a hand and moved around the area 402 to record a handwritten data) of a writing instrument, i.e., stylus, in the vicinity of the digital camera (See for example, col. 13, lines 14-60; and Fig. 4).

With regard to claim 2, the apparatus of claim 1 in which the portable electronic device comprises a mobile telephone or a personal digital assistant (See for example, item 40, in Fig. 4).

With regard to claim 3, the apparatus of claim 1 in which the digital camera is attached to the portable electronic device (See for example, col. 13, lines 48-53).

With regard to claim 4, the apparatus of claim 1 in which the digital camera is incorporated in the portable electronic device (See col. 13, lines 48-60; and col. 15, lines 61-67).

With regard to claim 10, the apparatus of claim 7 in which the portable electronic device includes a writing surface (See item 402, in Fig. 4).

With regard to claim 11, the apparatus of claim 10 in which the writing surface is on a protective cover (item 581, in Fig. 5B).

With regard to claim 14, the apparatus of claim 1 in which the software is configured to derive the location and trajectory of the hand motion (this feature is considered inherent because the handwritten data is constructed using the location and trajectory of the hand motion as described above for claim 1).

With regard to claim 19, the apparatus of claim 18 in which the display is not touch-sensitive (See item 401, in Fig. 4).

With regard to claim 20, as best understood, Whitham discloses the apparatus of claim 1 in which the portable electronic device includes a digital signal processing chip and a general-purpose microprocessor and the software is run in part on the chip and in part on the microprocessor (See for example, Figure 1).

With regard to claim 21, the apparatus of claim 1 in which the portable electronic device includes a wireless communication facility and the software is configured to communicate the handwriting and control information to a remote location (See for example, col. 13, lines 40-44).

With regard to claim 23, the apparatus of claim 1 in which the digital camera comprises a still camera (See for example, col. 1, line 24).

With regard to claim 24, the apparatus of claim 1 in which the digital camera comprises a video-capable camera, i.e., video camera (See for example, col. 1, line 24).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Whitham (6,526,351).

With regard to claim 7, Whitham discloses all of the claimed subject matter as already addressed above in paragraph 10, and incorporated herein by reference. While Whitham attaches the camera to the back of the PDA (See for example, col. 13, lines 51-53). Whitham does not expressly call for a mechanism configured to enable the digital camera to be attached to a writing surface. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to attach the camera to a writing surface. Applicant has not disclosed that attaching the digital camera to a writing surface provides an advantage, and is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with the camera attachment as taught by Whitham because both attachment perform the same function of deriving or obtaining handwritten information. Therefore, it would have been obvious to modify the teaching of Whitham with the analogous variation of attaching the camera to a writing surface as specified in claim 7.

13. Claims 5,12,15 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitham (6,526,351) in view of Ogawa (6,567,078).

With regard to claim 5, Whitham discloses all of the claimed subject matter as already addressed above in paragraph 10, and incorporated herein by reference. Whitham does not expressly call for an infrared filter arranged to filter light being received from the writing instrument. However, Ogawa (col. 10, lines 5-20) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to employ the teaching as taught by Ogawa into the system of Whitham if for no other reason than to filtering out infrared light.

With regard to claim 12, the apparatus of claim 1 in which the software is configured to define a mapping between a sensor surface in the digital camera and a space in which the hand motion is occurring (See for example, col.3, lines 6-27 of Ogawa).

With regard to claim 15, the apparatus of claim 1 in which the software is configured to generate the handwriting and control information based on processing cycles each associated with one location of the writing instrument (See for example, Figs 4-5 of Ogawa).

With regard to claim 25, the apparatus of claim 1 also including an infra-red beacon configured to be directed at the writing instrument (See col. 10, lines 5-20 of Ogawa).

14. Claims 8, 9, 13, 16-17, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Whitham as applied to claim 7 above, and further in view of Sekendur (US Patent Application Publication: 2002/0118181).

With regard to claim 9, Whitham discloses all of the claimed subject matter as set forth above in paragraph 12, and incorporated herein by reference. Whitham does not expressly call for comprising a clip configured to grasp paper. However, Sekendur (See for example, Fig. 1) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching as taught by Sekendur into the system of Whitham so that a clip board can be integrated in the PDA for mounting a paper document.

With regard to claim 8, the apparatus of claim 7 in which the mechanism comprises a a mechanism comprises a suction device configured for attachment to a white board (which reads on Figs. 1-6 of Sekendur).

With regard to claim 13, the apparatus of claim 1 in which the software is configured to define the mapping in response to calibration steps that includes a user marking three locations in

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the space in which the hand motion is occurring (See for example, page 5, paragraph 0082, lines 9-15 of Sekendur).

With regard to claim 16, the apparatus of claim 1 in which the software is configured to discriminate light received from the writing instrument by locking onto a carrier frequency at which light from writing instrument is modulated (broadly reads on page 4, paragraph 0078 of Sekendur).

With regard to claim 17, the apparatus of claim 1 in which the software is configured to determine a tilt of the writing instrument relative to a direction normal to a writing surface (See page 3, paragraph 0068; and page 4, paragraph 0079 of Sekendur).

With regard to claim 22, the apparatus of claim 1 in which the digital camera is configured to receive light that has been reflected from the writing instrument (which reads on page 4, paragraph 78 of Sekendur)

Conclusion


15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: 5874947, 6525715, 6633671, and 7006134.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G. MARIAM whose telephone number is 571-272-7394. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW BELLA can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DANIEL G MARIAM
Primary Examiner
Art Unit 2624

May 18, 2006